

Application Serial No. 09/160,991
Amendment dated October 22, 2004
Reply to Office Action of July 23, 2004

REMARKS

Applicant would like to thank the Examiner, Hwei-Siu Payer, for the interview that occurred on September 21, 2004 between Applicants' representatives, Kristi L. Davidson and Rey Hsu, and the Examiner.

The Examiner has rejected claims 1-7, 10, 12-14, 16, 20-22 and 29-32 under 35 U.S.C. § 103(a) as being unpatentable over Baker U.S. Patent No. 3,952,179 in view of Maybon U.S. Patent No. 5,580,472. Claims 8, 9, 11, 15, 25 and 26 are rejected under § 103(a) as being unpatentable over Baker and Maybon, and further in view of Cox et al. U.S. Patent No. 5,417,132.

Applicants respectfully traverse. With this response, new claims 33-37 are added, and affidavits from Dr. Rey Hsu, Mr. Robert Moore, and Mr. David Radlick are submitted herewith for consideration with the remarks below as well as with all prior affidavits, declarations and/or customer accolades previously submitted in support of the non-obviousness of the claimed invention.

With respect to previously presented claims 1-32, Applicants interpret the statements made by the Board, in the Decision on Appeal, to provide guidance to Applicants and the Examiner. As explained in the paragraph spanning pages 11 and 12 of the Reply dated May 25, 2004, the Board expressed agreement with appellants position¹ on the collective teachings of Baker and Maybon as described on page 13 of the brief, but pointed out that the claims did not support the position because they lacked the feature of the whole of the integral blade being comprised entirely of the abrasion resistant material. It follows that if the Board agreed with the argument made by Appellant, and Applicants followed the guidance of the Board regarding the missing feature in the claims that would support that argument by amending the claims to include the missing feature, then the amended claims should be allowable. So, in response, Applicants

1. Appellants argued that Baker does not teach laser cladding of the blade material and Maybon teaches only laser hardfacing of a ridge and teaches against a ridge wholly formed by laser cladding, and that the combined teachings of the references would only provide a tubular die with a bottom portion of the blade cast with the tubular die body, and a tip portion of the blade resurfaced with harder material.

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amended Independent claims 1, 20, 21 and 22 to include that feature noted by the Board to be missing. Examiner, however, has not followed the guidance given by the Board, and continues to reject the claims. In fact, to the same argument that the Board noted their agreement with, the Examiner responds, on page 5 of the Office Action, "Examiner disagrees." It would seem that the Examiner should give deference to the Board's decision rather than to blatantly disregard it.

In the personal interview conducted on September 21, 2004, Examiner indicated that she did not feel the Board had provided guidance, and that if the Board thinks the claims are allowable with that feature present, then the Board should be the one to allow the claims. Applicants respectfully assert that the Board did provide clear guidance and that Examiner should follow that guidance and allow the claims as amended. Applicants further urge the Examiner not to require Applicants to incur the cost of a second appeal and the Board to expend costly resources to address a matter the Board has already given guidance on simply because the Examiner feels the Board should be the one to act in view of their own guidance. With all due respect, the Examiner has the authority to give effect to the Board's guidance on this matter, and the Examiner should. Therefore, in light of the amendment to the claims in the Applicants' previous response and the clear statement by the Board that it agrees that the combined teachings of the reference do not teach the claimed invention if the claims included the feature that the whole of the integral blade is comprised entirely of the abrasion resistant material, it is respectfully requested that the rejection be withdrawn.

In addition, on page 6 of the Office Action, Examiner stated that she agrees with Dr. Hsu's comments in the declaration submitted under 37 CFR 1.132, yet maintains that the claims are obvious in view of the combination of Baker and Maybon. Dr. Hsu's comments set forth the significant problems with Baker that are solved by the claimed invention, and constitute evidence that the invention is not obvious. In addition, Dr. Hsu sets forth evidence of the significant savings in cost and time attributable to the present invention. The declaration constitutes rebuttal evidence, i.e., evidence to rebut the alleged prima facie case of obviousness. Stating that the Examiner agrees with the rebuttal evidence is tantamount to stating that

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Examiner agrees that the evidence rebuts the prima facie case of obviousness, and thus, Examiner should have removed the rejection and allowed the claims. To state that Examiner agrees with the rebuttal evidence and then maintain the rejection is a contradiction.

Applicant has submitted multiple declarations from Dr. Hsu, who has established himself as one skilled in the art, which declarations weigh heavily against the finding of obviousness. In addition, Dr. Hsu personally appeared before the Examiner, bringing visual exhibits to explain to the Examiner the problems with Baker and the benefits of the invention that one skilled in the art would simply not have found apparent in view of Maybon. Examiner has not called into question the qualifications of the declarant, and thus must except his statements, made under penalty of perjury, as true. Examiner expresses agreement with the declarant, yet turns around and disregards his testimony by maintaining the rejection. Examiner has not presented evidence that is inconsistent with the declarant's statements, but rather, maintains the rejection based on purely hindsight analysis without weighing the evidence against obviousness. Therefore, Applicants respectfully assert that the Examiner's rejection is in error, and request that the Examiner withdraw the rejection and allow the pending claims.

With respect to new claims 33-37, as well as previously presented claims 4 and 12-16, the combination of Baker and Maybon does not teach or suggest the claimed invention. The claims specify that the blade material is in powder form when introduced or deposited into the area heated by the laser. Baker discloses a conventional welding process. Conventional welding processes use welding wire, and it is not possible to use powder materials. In addition, it is difficult to manufacture hard, carbide-containing materials in wire form, due to the potential for cracking. Thus, welding wires typically use softer metals. If a hard carbide-containing powder material is produced in wire form, welding cannot be performed successfully, as attested to in the attached affidavit from Dr. Rey Hsu. Baker does not teach using a laser beam to heat the die body, nor does Baker teach using powder metal as the source material for the die blades. In fact, powdered metals cannot be used in Baker's welding method. Thus, the use of powdered metal as a source material is not an obvious substitution given that the powdered metal source

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material is unusable in Baker's welding method. Moreover, Maybon cannot be used with Baker merely as a teaching reference for lasers as a heat source to arrive at the claimed invention. There is no teaching or suggestion in the references that Maybon's laser hardfacing may replace both the welding tool and the source material of Baker to wholly form integral cutting blades on a rotary die. Thus, there is no *prima facie* case of obviousness with respect to claims 4, 12-16, and 33-37.

Submitted herewith are affidavits from senior sales engineers of Bernal, Inc., namely Mr. Moore and Mr. Radlick. The Declarants work with customers to provide them with rotary cutting dies that meet their product needs. Both Declarants have worked with customers to provide them with rotary cutting dies, including dies made in accordance with the claimed invention. Both Declarants are in a position to receive feedback from the customers on the success of the laser clad dies, with respect to their performance, the amount of time and cost savings, the extended die life, etc. While Dr. Hsu is able to attest to the savings experienced in the manufacture of the dies, Mr. Moore and Mr. Radlick are able to attest to the success of the dies in use, as told to them by their customers. Thus, in addition to the customer accolades of Mr. Harrison and Mr. Bell submitted July 5, 2001, Applicants hereby submit further evidence of commercial success and superior results.

In one affidavit, Mr. Moore attests to his dealings with Glad Products on the sale of cutting dies. He attests that dies of the present invention were sold to Glad on the basis of Bernal's assertion that the dies would achieve extended die life compared to any other die on the market, including dies made by welding processes. Mr. Moore further attests that the Customer reported achieving about 6 times longer die life than with the dies that they are currently using, which are made by EDM of the base metal. Finally, Mr. Moore attests that as a result of the Customer's satisfaction with the superior results achieved by Bernal's laser clad dies, they will be purchasing additional laser clad dies from Bernal in the future. Similarly, Mr. Radlick attests to his dealings with Mead Corporation and the sale of dies of the present invention to Mead on the basis of Bernal's assertion that the dies would achieve extended die life compared to

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any other die on the market, including dies made by welding processes. Mr. Radlick further attests that the Customer reported achieving about 2-4 times longer die life than with the dies that they are currently using. Finally, Mr. Moore attests that as a result of the Customer's satisfaction with the superior results achieved by Bernal's laser cladded dies, they will be purchasing additional laser cladded dies from Bernal in the future. Thus, these affidavits provide further evidence that the dies of the present invention achieve superior results to dies made by all other conventional die-making methods, including welding, and have achieved commercial success, not by advertising, but by proving true, through use, the superior results that the dies are asserted to exhibit.

The value of the affidavits is that they establish that by actually using the dies, customers are reporting that the dies achieve superior results with respect to die life, and consequently, the customers wish to purchase additional dies. Thus, the superior results and commercial success established by this evidence is independent of advertising and sales figures, and is based upon actual use and feedback from customers. In addition, Dr. Hsu's declaration submitted May 25, 2004 provides a direct time and cost comparison for manufacturing dies by the laser cladding method of the present invention and dies by the Baker welding method. Thus, the affidavits of Mr. Moore and Mr. Radlick are further submitted as evidence of commercial success and superior results for consideration in combination with all other declarations and customer accolades previously submitted as establishing the non-obviousness of the claimed invention, including Dr. Hsu's 2001 and 2004 declarations, Mr. Madill's declaration, and the customer accolades of Mr. Harrison and Mr. Bell. Applicants believe that the weight of the evidence establishes patentability of the claimed invention, and Applicants respectfully request withdrawal of the pending rejections.

In view of the foregoing amendments to the claims, affidavits and remarks given herein, Applicants respectfully believe this case is in condition for allowance and respectfully request allowance of the pending claims. If the Examiner believes any detailed language of the claims requires further discussion, the Examiner is respectfully asked to telephone the

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undersigned attorney so that the matter may be promptly resolved. The Examiner's prompt attention to this matter is appreciated.

Applicants are of the opinion that an additional fee of \$72 is due as a result of this amendment. Please charge Deposit Account 23-3000 in the amount of \$72. If any additional charges or credits are necessary to complete this communication, please apply them to Deposit Account No. 23-3000.

Respectfully submitted,

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KLD response to OA formal